

DSS 43

- 50% Antenna Re-Balance (ECR 4.0005)
- Structural Strengthening Task (ECO 93.0084)

Downtime Readiness Review

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Agenda

- ◆ Downtime Readiness Review Definition
- ◆ Task Summaries
- ◆ Task Status
- ◆ Success Criteria Checklist

Downtime Readiness Review Definition

◆ Purpose

Ensure that all products, procedures, plans and personnel required to successfully accomplish the downtime activities are available, and that the risk to Operational activities is low.

◆ Inputs

Detailed downtime schedule, Modkit deliveries, Rental equipment supplier, ETA's, Contractor safety plans, Training plans and Ops procedures.

◆ Success Criteria

Schedule is credible, and personnel are available.

Hard Ware is on site 4 weeks prior to DOY 143.

Installation and Safety Documentation is complete.

On site support tools & equipment are available.

Antenna pointing is verified.

Post 50% balance adjustment data collected.

Antenna returned to normal operation.

Task Summary

- ◆ Relocate Antenna Counter weight plates. As per ECR 4.0005.
- ◆ Add Strengthening Plates to identified locations as per ECO #93.0084. Following the instillation procedure DSMS Doc No 868-000192.
- ◆ Gussets currently fitted at hoop 10 to be removed to permit proper fit up of P2 plates.
- ◆ Priority to be given to areas not previously reinforced.
- ◆ Maximum strengthening achieved as per prioritised agreement. Hoop 10 , 6, & 8.
- ◆ Strengthening Task is to be performed on a Non Interference Basis during the Antenna Re-Balance down time DOY 143-158.
- ◆ Pointing models are verified.
- ◆ Post plate movement data collected.

Task Status

- ◆ Detailed schedule has been developed and reviewed.
- ◆ Detailed Safety Plan and Work Method Statements have been developed and reviewed.
- ◆ Balance data verified by JPL
- ◆ Hardware provided by JPL arrived on DOY 111.
- ◆ Contract placed with welding firm K&R.
- ◆ Contract Placed with Rovera Scaffolding.
- ◆ Contract placed with Coates Hire Service.
- ◆ Contract Placed with Pacific Formwork Cranes.
- ◆ Contractor Orientation and site inductions scheduled for DOY 142.
- ◆ Contractor familiarisation and training on Swing Stage Scaffolding Scheduled for DOY 142.

Success Criteria Checklist

Success Criteria	Plan	Criteria Met Yes / No
Schedule	Schedule was developed to include all tasks taking place during this down time.	Yes
Detailed Safety Plan	Safety Plan has been developed and reviewed by all task participants, all tasks. Daily Safety Meetings.	Yes
Balance	Plate Movements have been verified by JPL	Yes
Balance Plates & Strapping equipment	On site	Yes

Success Criteria Checklist Continued

Success Criteria	Plan	Criteria Met Yes / No
Detailed Instillation procedure	Procedure as provided by JPL Balance ECR # 04.0005 Strengthening Doc No.868-000192	Yes
Hardware	On site and complete	Yes
Hire Equipment	Contracted to arrive DOY 142	Yes
Contracts	Checked off DOY 118	Yes

Success Criteria Checklist Continued

Success Criteria	Plan
Pointing Calibration	Conduct Star Tracks to Gauge Quality of Existing Models
Conduct Balance run and return data to JPL for review	Conduct balance run and analysis as per DSMS No 869-000-113 volumes 1, 2, 3.
Return Antenna to normal operation	

Supporting Document List.

- ◆ DSMS Doc No. 869-000113 70 m Antenna Elevation Balance Test Procedure Vol 1, 2, 3.
- ◆ ECR 4.0005 DSS 43 Tipping Structure Rebalance.
- ◆ DSMS Doc No. 868-000192 70m Antenna Tipping Structure Strengthening Task.
- ◆ ECO 93.0084 Tipping Structure Strengthening.
- ◆ DSN-STD-1015 Welding Structural Steel.
- ◆ DSN-STD-1006 Painting or Thermal Coating DSN Antennas And Supporting Structure.

DSS-43 Antenna Rebalancing Downtime Detailed Schedule

DOY143/0235-158/2235

Sun	Mon	Tue	Wed	Thu	Fri	Sat
MAY						
9	10	11	12	13	14	15
		Fencing on site and erected				
16	17	18	19	20	21	22
	Scaffold on site Induction for Scaffolders	Crane on site 1 Day Only Swing Stage Mounts B,U,S,	Erect over head Protection Alidade roof Ant Tracking	Erect over head Protection Alidade roof Ant Tracking	Site inductions K & R Swing Practice Hire Equipment on site	Safety Meeting Down Time Starts DOY 143 / 0235 LOC Time 12:35 pm Set up Equipment Crane on site to 30th
23	24	25	26	27	28	29
Safety Meeting Bal-L/H Hoop 6 R/H Hoop 10	Safety Meeting Bal-L/H Hoop 6 R/H Hoop 10	Safety Meeting Bal-L/H Hoop 6 R/H Hoop 10	Safety Meeting Bal-L/H Hoop 6 R/H Hoop 10	Safety Meeting Bal-L/H Hoop 6 R/H Hoop 10	Safety Meeting Swap Sides Hoop 10	Safety Meeting Bal-R/H Hoop 6 L/H Hoop 10
30	31	1	2	3	4	5
Safety Meeting Bal-R/H Hoop 6 L/H Hoop 10 Crane off site	Safety Meeting Bal-R/H Hoop 6 L/H Hoop 10	JUNE Safety Meeting Hoop 6 L/H Hoop 10 Bal-R/H	Safety Meeting Hoop 6 L/H Hoop 10 Bal R/H	Safety Meeting Hoop 6 L/H Hoop 10 Bal R/H Crane on site	Safety Meeting Hoop 6 L/H Crane on site Antenna clear to Tip	Safety Meeting Re Bal Run
6	7	8	9	10	11	12
Safety Meeting Re Bal Run	Down Time Ends DOY 158 / 2235 Loc 8.30 am					